

smallest grown by any of the Deer, those of *Cervus rufinus* of the Andes of Ecuador and Columbia being, I believe, considerably larger. It will be observed that the antlers are perfectly simple, slightly curved, unbranched, and terminate in a point. The length of the antlers shed in November 1869, is 2·5 inches, that of those shed in December 1870, 2·8 inches.

25. *HALMATURUS ERUBESCENS*. (Figs. 5 & 6, p. 239.)

Macropus erubescens, Sclater, P. Z. S. 1870, p. 126, pl. x., et p. 669.

I regret to have to announce the recent loss of the two fine specimens of this new Kangaroo. One of these I now exhibit, that received July 20th, 1870. It agrees generally with that figured and described *l. c.*, but is of a nearly pure white on the throat and body beneath, and has the end of the tail black. The upper back is of a rich vinous colour, which is also continued over the shoulders, nape, and top of the head. The hands and feet are black. The measurements of this specimen are:— whole length, from nose to base of tail, 40 inches; tail 26 inches; length of ears nearly 5 inches; of tarsus to end of longest toe 11. The muffle of *M. erubescens* is quite naked; and the species therefore belongs strictly to the section *Halmaturus* of Mr. Waterhouse's arrangement.

The skull of the specimen (fig. 5, p. 239) shows that the animal was not yet adult, the third and fourth molars being not yet in their places. In general form it resembles most nearly that of *Macropus rufus*. The third incisor, as in that species, has but one shallow vertical groove, placed rather in front of the middle (see fig. 6, p. 239); but the whole tooth is wider and not so deep as is represented in Mr. Waterhouse's figure of the corresponding tooth in *Macropus rufus* (Mamm. ii. pl. 5. f. 3).

2. List of the Lizards belonging to the Family *Sepidæ*, with Notes on some of the Species. By Dr. A. GÜNTHER, F.R.S., F.Z.S.

[Received February 20, 1871.]

The family *Sepidæ*, as defined by Dr. Gray (Catal. Lizards, p. 121), forms a perfectly natural group of Lizards, peculiar to the African region, including the countries round the Mediterranean, Madeira, the Canaries, Madagascar, Mauritius, but not the Seychelle Islands. This family is also remarkable for exhibiting the most perfect transition from species with four well developed, though always feeble, limbs, to others in which only minute external rudiments of these organs are perceptible. Several additions having been made to this family during the last twenty years, I have thought it useful to compile a list of the species known at present, drawing also attention to those which are desiderata for the British-Museum collection.

SEPIDÆ (Gray).

I. SPHENOPS (Wagler).

1. *Sphenops sepoides* (Aud.). B.M.
Northern Africa, Syria (Senegal?).
2. *Sphenops meridionalis* (Gthr.) B.M.
Anisoterma sphenopsiforme (A. Dum.).
Gaboon, Senegal.

II. SCELOTES (Fitz.).

1. *Scelotes bipes* (L.) B.M.
Scelotes linnæi (Gravenhorst, in Nov. Ac. Cæs. Leop. xxiii. 1.
p. 376, tab. 43).
South Africa, northwards to Angola.
2. *Scelotes fierinensis* (Grandidier, Rev. et Mag. Zool. 1869, p. 340).
Madagascar.

III. SEPS.

α. HETEROMELES (D. & B.).

1. *Seps capensis*. B.M.
Gongylus capensis (Smith).
Western coast of South Africa.
2. *Seps mauritanicus*.
Heteromeles mauritanicus (Dum. & Bibr.).
Algeria.

β. GONGYLUS (Wagl.).

3. *Seps ocellatus* (Forsk.) B.M.
Mediterranean region, southwards to Abyssinia; Madeira.
4. *Seps viridanus*. B.M.
Gongylus viridanus (Gravenh.).
Teneriffe.
5. ? *Seps igneocaudatus*.
Gongylus igneocaudatus (Grandidier, Rev. et Mag. Zool.
1867, p. 234).
Madagascar.
6. ? *Seps polleni*.
Gongylus polleni (Grandidier, *l. c.* 1869, p. 340).
Madagascar.

γ. SEPS (Daud.).

7. *Seps tridactylus* (Laur.) B.M.
European and African parts of the Mediterranean region.
8. *Seps monodactylus* (Gthr.) B.M.
Palestine.

IV. THYRUS (Gray).

1. *Thyrus boyeri* (Desj.) B.M.
Mauritius, Round Island.

V. SEPSINA (Bocage).

1. *Sepsina angolensis* (Bocage, Journ. Sc. Math. &c. Lisb. 1866, p. 62).
Angola.
2. *Sepsina grammica* (Cope, Proc. Ac. Nat. Sc. Philad. 1868, p. 318).
South-west Africa.

VI. AMPHIGLOSSUS (D. & B.).

1. *Amphiglossus astrolabi* (D. & B.).
Madagascar.

These species may be arranged in the following series, according to the degree of development of the limbs :—

- a. *Four limbs well developed* : *Gongylus ocellatus*, ? *Gongylus igneocaudatus*, ? *Gongylus polleni*, *Thyrus boyerii*.
- β. *Four feeble limbs, but with 5 toes* : *Sphenops sepsoides*, *Seps capensis*, *Amphiglossus*.
- γ. *Four limbs, with less than 5 toes.*
 - Toes 4—4* : *Gongylus viridanus*.
 - Toes 2—4* : *Sphenops meridionalis*.
 - Toes 3—3* : *Sepsina*, *Seps tridactylus*.
 - Toes 2—3* : *Seps mauritanicus*.
- δ. *Four rudiments of limbs, without toes* : *Seps monodactylus*.
- e. *Only two two-toed hind limbs* : *Scelotes*.

SPHENOPS MERIDIONALIS.

I am obliged to propose this name for "*Anisoterma sphenopsiforme*" (A. Dum. Arch. Mus. x. p. 180, pl. 15. fig. 3), as the genus is identical with *Sphenops*, so that the original specific name cannot be retained. *Sphenops sepsoides* has 5—5 very small toes; in *S. meridionalis* the toes are still more rudimentary, and reduced in number to 2—4. Otherwise the resemblance between the two forms is so great that one would have been justified in describing them as varieties of the same species, if no other distinctive character could have been discovered. However, I find that, in the northern form, the external cleft of the mouth is continued to the ear, and has a serrated margin. In *S. meridionalis* there is a distinct space between the angle of the mouth and the ear, and there is no serrature of the margin of the mouth.

The typical specimen is said to have been received from the Gaboon. The British Museum obtained by purchase two specimens from M. Parzudaki, who stated that he had received them from Senegal.

SEPS (GONGYLUS) CAPENSIS, Smith, Zool. S. Afr. Append. p. 10.

Sir A. Smith has presented to the British Museum two small lizards contained in a bottle, which is labelled in his own handwriting "*Gongylus capensis*." In his description (*l. c.*) he distinctly refers to a single specimen, two inches long, without the tail, which was lost. One of our two specimens is, indeed, of that size, and without

tail; and the presence of the second specimen might be accounted for by supposing that Sir A. Smith found it among his extensive collection, *after* the publication of the Appendix, and placed it in the same bottle with the typical example.

The description itself answers well enough to our examples, except in two points. The innermost toe is described as being rather longer than the second; and a minute circular ear-opening is mentioned. Now in those examples (which have considerably suffered during the long period of their preservation) no trace of an external ear-opening can be found; and I should have described the second toe as rather longer than the innermost. Nevertheless, taking all the circumstances into consideration, I am inclined to regard the tailless example as the type of Sir A. Smith's description; and I may add that the body is surrounded by twenty-three longitudinal series of scales, and that there are seventy scales in a longitudinal series between the fore limb and vent.

This species connects *Scelotes* with *Seps*. It may be referred to the subgenus *Heteromeles*, on account of the indistinctness of the ear-opening.

SEPS (GONGYLUS) VIRIDANUS, Gravenhorst, Act. Nov. Ac. Cæs. Leopold. xxiii. p. 348.

Head as in *Gongylus ocellatus*. Limbs much more feebly developed, with only four toes; the anterior shorter than the head, the posterior shorter than the distance of the fore-limb from the extremity of the snout. Body surrounded by twenty-four longitudinal series of scales; there are seventy-five scales in a longitudinal series between the fore limbs and the vent. Ear a small round opening. Upper parts brown, with an olive-coloured band, two scales broad, on each side of the back. The brown median part on the back with small white black-edged ocelli, arranged in two longitudinal series. The ocelli are continued on the tail, but not the bands. Lower parts white.

	millims.
Total length without tail (which is injured, and partly reproduced in all the specimens)	83
Length of the head (to the ear-opening)	9
Length of the fore limb	7
Length of the hind limb	15
Length of the fourth hind toe	5

Two specimens of this Lizard, said to have been brought from North-western Africa, were received from the Zoological Society*. Fortunately the British Museum possesses a third specimen, from which more accurate information with regard to the habitat is obtained. It was brought by R. M'Andrew, Esq., in the year 1852, from Orotava, on the island of Teneriffe, which locality is mentioned also by Gravenhorst.

This species is instructive in several respects. It is one of the numerous instances which prove that modifications of a rudimentary

* [They were purchased by the Society from a dealer along with specimens of other North-African Reptiles, June 15th, 1870 (see P. Z. S. 1870, p. 900).—P. L. S.]

organ cannot be used as generic characters. Thus, whenever in a group of reptiles the limbs are in a more or less rudimentary condition, the number of toes indicates only specific distinctness, and sometimes it is evidently subject to even individual variation. Further, the genera *Seps*, *Gongylus*, and *Heteromeles* had been distinguished only by the differences in the number of toes of their rudimentary limbs, as we cannot take into account the more or less complete scaly covering of the external ear-opening, which is sometimes very distinct, sometimes rather indistinct, and sometimes entirely hidden by an overlapping scale. At present, we know the following modifications intermediate between the toeless *Seps monodactylus* and the five-toed *Gongylus ocellatus* :—

	Fore toes.	Hind toes.
<i>Gongylus ocellatus</i>	5	5 (well developed).
<i>Gongylus capensis</i>	5	5 (feeble).
<i>Gongylus viridanus</i>	4	4
<i>Seps tridactylus</i>	3	3
<i>Heteromeles mauritanicus</i> . .	2	3
<i>Seps monodactylus</i>	0	0

Consequently I am inclined to unite the species mentioned into one genus, for which the name *Seps* may be retained.

Several instances have been made known of animals restricted in their habitat to islands, and having the organs of locomotion in a much less developed state than nearly allied species of continental faunas. Speculation has seized upon these instances to connect this peculiarity of structure with the fact of insulation; and the short-limbed *Gongylus viridanus* of Teneriffe, when compared with the continental five-toed *Gongylus ocellatus*, would appear to offer another instance leading to the same way of reasoning. But then we find that *Gongylus ocellatus* is also an inhabitant of Malta, Madeira, and other small islands, without showing signs of imperfectly developed limbs, and, again, that *Seps monodactylus* and *Heteromeles* are not less continental species than *Seps tridactylus*, as also that the five-toed *Sphenops sepoides* and the short-limbed *Sphenops meridionalis* are widely spread over large districts of the same continent.

3. Descriptions of some new Insects collected by Dr. Anderson during the Expedition to Yunan. By FREDERIC MOORE, FRANCIS WALKER, and FREDERICK SMITH.

[Received February 21, 1871.]

(Plate XVIII.)

Order LEPIDOPTERA.

HETEROCERA.

1. SYNTOMIS ANDERSONI, Moore, n. sp. (Plate XVIII. fig. 1.)

Male and female. Wings hyaline, veins bluish black; body black, with orange-yellow bands: fore wing with the costa and exterior and